

ON SUSSEX FLINT ARROW-HEADS

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FLINT arrow-heads have been found in considerable numbers in Sussex, and an inquiry as to their types and distribution has revealed several facts of interest. The following notes are based on an examination of 1,682 specimens in the following public and private collections: the late Mr. E. J. G. Piffard, 279; Mr. Gurney Wilson, 300; the late Mr. George Gudgeon, 248; the writer, 332; Barbican House, Lewes, 198; Brighton Museum, 71; Haslemere Museum, 52; Mr. C. J. A. Attree, 58; Major Maitland, 43; the British Museum, 22; the Eastbourne Natural History Society's Museum, 14; and smaller collections, private and public, 64.

GENERAL DISTRIBUTION

The unevenness of the distribution of flint arrow-heads in the county is very striking. Granted that search has been more diligent in some areas than in others, this cannot, however, account for the comparative rarity of arrow-heads on the Downs west of the River Adur. Of the 837 specimens found on the chalk only 60, or 7 per cent., have been found west of that river, and of this number all but 13 came from the Storrington and Parham Downs. This irregularity of distribution, even when due regard is had for irregularity of search, is still more marked on the sands of the Forest Ridge, for of the 726 examples there found 98 per cent. came from the Tunbridge Wells sands between Horsham and a little east of Pease Pottage, while the long stretch of Ashdown Sands by Crowborough, Buxted, Isfield down to Playden, have only yielded 21. As was to be expected, the open country of the Downs and the Forest Ridge have produced the great majority of specimens—49·74 and 43·25 per cent. of the total number respectively. The explanation of the comparative paucity of arrow-heads from the western

Downs is not easy to understand. During six summer holidays spent near Gumber Farm, in the parish of Slingdon, a careful search yielded but one arrow-head; we had expected to find more, as in the same time and area we found a great number of concave scrapers, indeed as many concave as convex ones; we had always assumed that the former had been used in the preparation or treatment of arrow shafts, but it appears that doubt must be thrown on this assumption.

There is a record of 69 examples from the Wealden clay. Of this number 18 came from a nursery-garden at Crawley, and as top-spit soil has from time to time been taken thither from the sand-pit at Betchworth, Surrey, there is some doubt as to their real provenance; they are, however, with this caution, included in the schedule. Six of the remainder came from the neighbourhood of Bexhill, where Wealden clays march with sands, so here also there is some uncertainty. Of the remaining 45 the provenance of which is certain no fewer than 41 were found in the extreme west and north-west of the county.

The Lower Greensand Ridge has yielded 26 specimens sparsely distributed between West Harting in the west and Selmeston and Arlington in the east. From the Greensand in the north-west 22 examples are reported, making a total of 48 from the Greensand.

On the Coastal Plain only two arrow-heads have been recorded, one at Worthing and the other at Walberton.

TYPES AND THEIR DISTRIBUTION

The types of Sussex arrow-heads are portrayed in Plate I.¹ The table reveals the distribution of the various types in the five geological areas into which the county may be divided. The dominant types are the leaf-shaped and those with barbs and stem. The former I have somewhat arbitrarily divided into two classes, viz. those which are markedly long compared with their breadth (412), and those which are relatively broad compared with their length (157). This type represents 20·2 per cent. of

¹ The classification of the derivatives of the *petit tranchet* is taken from Dr. Grahame Clark's paper in *Arch. Journ.* xci. 32.

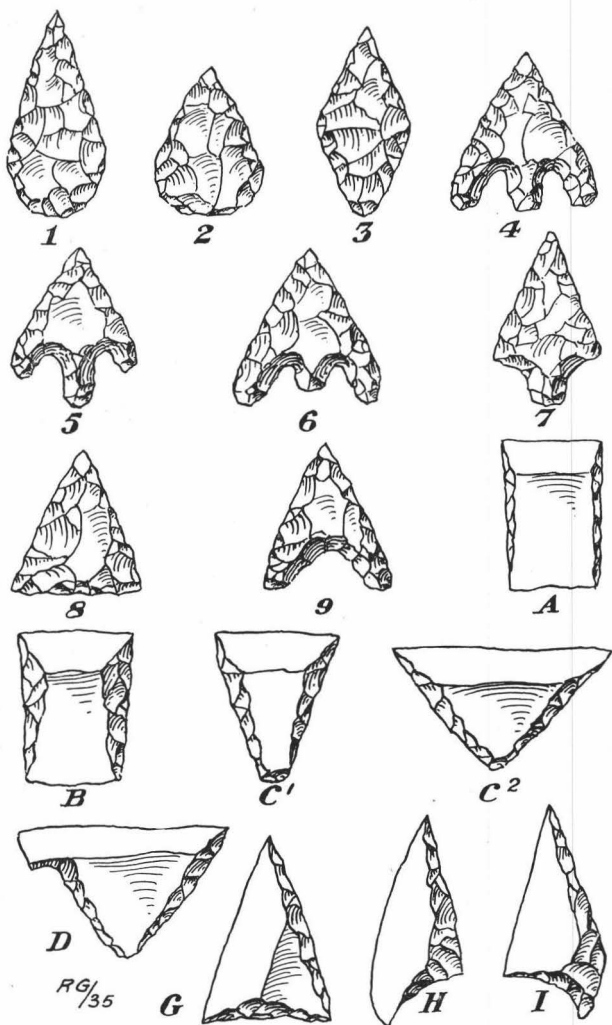


PLATE I. TYPES OF ARROW-HEADS.

those found on the Forest Ridge, and 46.9 per cent. of those from the chalk.

	Forest Ridge	Weal- den Clays	Lower Green- sand	Chalk Downs	Coastal Plain	Total	Per cent. of grand total
<i>Petit Tranchet</i> A	5	..	4	9	..	18	1.07
„ Derivative B	10	..	..	..	..	10	0.6
„ „ C ¹	10	2	1	10	..	23	1.36
„ „ C ²	2	1	1	3	..	7	0.41
„ „ D	27	1	1	14	..	43	2.55
„ „ G	16	..	1	13	..	30	1.78
„ „ H	51	3	10	59	..	123	7.31
„ „ I	28	..	1	22	..	51	3.03
Long leaf	102	6	7	296	1	412	24.41
Broad leaf	45	11	4	97	..	157	9.33
Lozenge	10	..	..	14	..	24	1.42
Barbs and tang equal	25	5	1	16	..	47	2.79
Barbs longer than tang	36	4	1	22	1	64	3.80
Barbs shorter than tang	141	28	12	127	..	308	18.31
Barbed and tanged unclassified	159	4	1	41	..	205	12.18
Stem only	9	..	1	22	..	32	1.90
Triangular	31	2	1	45	..	79	4.7
Hollow based	13	1	1	21	..	36	2.14
Aberrant Types	6	1	..	6	..	13	0.77
	726	69	48	837	2	1,682	99.86

Arrow-heads with barbs and stem, or tang, are divided into three groups according to the relative lengths of barbs and tang. In the great majority the tang is the longer, 308 in all; they form 19.4 per cent. of those found on the Forest Ridge and 15 per cent. on the chalk Downs. If to their number is justly added the bulk of those barbed and tanged specimens too broken to be certain of their classification (205), we have a figure over 500, or nearly a third of the total number.

The other types of arrow-heads are relatively uncommon.

Only 18 examples of the true *petit tranchet*, or chisel-ended arrow-head (A), have been found; these and their derivatives B, C¹, and C² have for the most part come from sites yielding products of the microlithic industry. This cannot be said of the remaining derivative types, though they are more plentiful on the Forest Ridge

where microlithic sites are more numerous. Type B seems to be confined to the Ridge. Type H is plentiful (51) in the Forest and rare on the Downs except between Alfriston and Eastbourne, whence have come 45 of the 59 examples found on the chalk. The *petit tranchet* is itself derived from the trapeze type of microlith, a

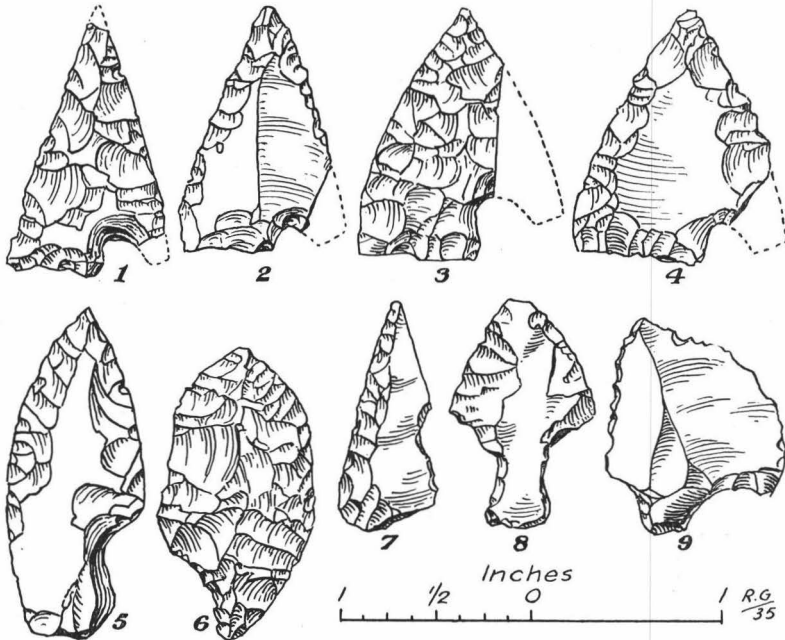


PLATE II. ABERRANT TYPES OF ARROW-HEADS.

specimen of which was found in Pit I at the microlithic site at Selmeaton.¹

A few aberrant types occur (Plate II). Figs. 1-4 of the Plate are lob-sided, but not true one-barbed arrow-heads of *petit tranchet* derivative types, in that they are triangular in outline and have all three edges carefully worked. Nos. 1 and 3, with another not figured, are from the Forest Ridge; No. 2 came from the chalk at Offham, Lewes; No. 4 from Mile Oak, and a sixth was found at

¹ *Antiq. Journ.* xiv. 143, Fig. 47.

Blackdown Farm in the north-west. This is a definite though uncommon type. The writer has a specimen found on a ploughed field on Windmill Hill, Wilts., and Mr. A. Keiller informs him he has found a few other examples on the hill, but never deep in the ditches.¹ Nos. 5 and 6 do not appear to have been broken and rechipped, but suggest a transition between the leaf and tanged types; they are both from the Forest Ridge; a further example comes from the Eastbourne Downs. No. 8 from Jevington has an expanded end to its tang,² and No. 9 is from East Hill, Saddlescombe.

The fact that 93 per cent. of our arrow-heads have been found on the chalk Downs and Forest Ridge indicates how unsuitable the densely wooded and swampy Weald and the Coastal Plain were for hunting in these early days.

In the Society's Collection at Lewes are three arrow-heads of chert which are clearly derived from North America. One was found in the garden of Bosham vicarage, one at Watersfield, and the other on the Downs at Firl. They had evidently been recently lost, and are mentioned here as a warning. There are also two bare-faced and easily detected forgeries.

Before leaving the subject of arrow-heads that have been found in Sussex reference should be made to a piece of blood-stone artificially shaped to resemble an arrow-head, found in Bosham, and now in the writer's possession. It is flat and polished on one surface while the sides and back are rough. It had probably been mounted and carried or worn by its erstwhile owner as a talisman or amulet, a purpose to which flint arrow-heads have often been put.

CHRONOLOGY

Eight arrow-heads have been found with associated remains in Sussex; five leaf-shaped and one lozenge in the ditches of the Neolithic fortified camps at Whitehawk

¹ The Museum of the Bristol University Spelæological Society contains an example from Gorsey Bigbury on the Mendips.

² Nos. 2 and 4 are in the Brighton Museum, Nos. 1, 3, 5, and 6 are in the collection of Mr. Gurney Wilson, and Nos. 8 and 9 in that of the writer.

and The Trundle,¹ one leaf-shaped in an early Bronze Age round barrow associated with the flint mines at Blackpatch,² and a specimen with barb and tang of the same length with an Early Bronze Age crouched burial near the Ditchling Road, Brighton.³ All the other arrow-heads found in the county have been surface finds, and hence carry no criteria as to the periods to which they belong. We owe our present estimate of the relative chronology of the different types mainly to Mr. Reginald Smith⁴ and to Dr. Grahame Clark.⁵

In notes on the *petit tranchet*, or transverse arrow-head, in *S.A.C.* LXIX. 80, it was shown that all the then known specimens from our county came from late Mesolithic sites, which have since been proved by Dr. Clark⁶ to belong to a non-geometric industry of Tardenoisian character. Since then 48 other specimens of *petit tranchet*, and its derivatives B, C¹, and C² have either come to light in the field or have been discovered in collections; of these 25 are known to have been found associated with microliths, and 1 came from a ditch of the Whitehawk Neolithic camp.⁷ The fact that an example has been found in a barrow on Gerrick Moor in the North Riding of Yorkshire with an incense cup of the Middle Bronze Age, shows that the type lasted long, but as regards the Sussex examples it is clear that they may justly be assigned to the earlier period.

Dr. Clark's examination of the various types (B-I) derived from the *petit tranchet* has led to the conclusion that they date back to the Peterborough, or closing phase of the Neolithic, period, and that they lasted through the Beaker phase and well into the Bronze Age.

In his paper Mr. Reginald Smith dealt with the 123 examples of flint arrow-heads that had up to that time (1926) been found in true association with datable

¹ *S.A.C.* LXXI. 72, 3; LXXII. 139; *Antiq. Journ.* XIV. 121.

² J. H. Pull, *The Flint Miners of Blackpatch* (1932), p. 70.

³ *Antiq. Journ.* II. 55.

⁴ *Archaeologia*, LXXVI (1926), pp. 81 et seq.

⁵ *Arch. Journ.* XCI. 32.

⁶ *The Mesolithic Age in Britain*, pp. 70-96.

⁷ *S.A.C.* LXXI. 76.

objects in England and Scotland.¹ In it he showed that, with one exception, the 38 leaf (Pl. I, Figs. 1 and 2) and 22 lozenge-shaped (Pl. I, Fig. 3) arrow-heads were confined to the Neolithic period. The examples from our Sussex causewayed camps, and many of those found on the surface, are of great thinness and delicacy of flaking. Whether other surface specimens of the same general shape but thicker, and of coarser technique, also date back so far may be open to doubt. Specimens taken from long barrows and other definite Neolithic associations are invariably of great thinness and beauty of outline. It is probable that the type persisted with an inferior technique long after the close of the Neolithic period. One specimen found near the Dyke Road, Brighton, was evidently made from a flake off a polished axe.

Leaf-shaped arrow-heads are nearly three times as numerous on the chalk as on the Forest Ridge, and this is what we should expect from what is known of the present-day distribution of Neolithic camps and long barrows. There is no direct evidence that Neolithic man ever lived on the Forest Ridge; that he visited it for the purposes of hunting is, however, sufficiently evident. The preponderance of the leaf over all other types in the east is very marked. In my own collection of 253 specimens found within about five miles of Hove there are 32·8 per cent. leaf as against 41 per cent. barbed arrow-points, whereas from the Downs between Alfriston and

¹ Mr. Smith's findings may be tabulated thus:

<i>Types</i>	<i>Neolithic</i>	<i>B.A. I</i>		<i>B.A. II and III Cremation</i>
		<i>Beaker</i>	<i>Inhumation</i>	
Leaf—long . . .	35	..	..	1
„ — broad . . .	3	..	..	..
Lozenge . . .	22	..	..	..
Barbs and stem equal . . .	..	13	8	1
Barbs longer . . .	..	7	1	..
Stem longer . . .	..	10	1	15
Stem only . . .	..	1	..	2
Hollow base . . .	..	..	..	1
Triangular . . .	..	..	..	1
<i>Petit tranchet</i> . . .	..	..	..	1
	60	31	10	22

Eastbourne come 58·6 per cent. leaf and only 12·4 per cent. barbed points.

The lozenge type occurs only 24 times with us, and hence is among the rarest of our arrow-heads; it belongs to the same period as the leaf-shaped ones.

The invaders who brought the Beaker to these shores brought also the broad arrow-head with barbs and stem of equal length (Pl. I, Fig. 4), so that the end of the stem reaches to a line drawn between the tips of the barbs. This is the common type found in Beaker burials, though it must be remembered that it is in but a small minority of such burials that any flint is found at all. The only Beaker burial with an arrow-head of this type from Sussex known to the writer was reported by Mr. H. S. Toms, from a crouched burial near the Ditchling Road, Brighton; in this case the sides of the arrow are markedly curved. To this class belong less than 3 per cent. of the Sussex arrow-points.

Arrow-heads in which the barbs are longer than the tang (Pl. I, Fig. 6), or stem, have also been found with Beaker burials. All our Sussex examples, 64 in number, have come from the surface, and more than half of these from the Forest Ridge.

As has been stated above, the commonest type in Sussex is the arrow-head with stem definitely longer than the barbs (Pl. I, Fig. 5), and in many cases rather broad. In England 11 such have been found with Bronze Age I burials, and 15 with cremation burials of Bronze Age II or III, so that the type persisted during the greater part of the thirteen to fifteen centuries of the Bronze Age. All our Sussex specimens have been found on the surface, and in roughly equal proportions on Forest Ridge and Chalk.

Perhaps with this class may also be included the tanged arrow-heads without, or with only rudimentary, barbs (Pl. I, Fig. 7). Two specimens have been found with cinerary burials in Scotland. Of our 32 Sussex examples 22 have come from the Chalk.

The only positive proof for the dating of the frankly triangular arrow-point (Pl. I, Fig. 8) without barbs or

tang, is the discovery of one such with a Middle Bronze Age cremation with incense cup and faience beads at Aldbourne, Wilts. This type forms 4 per cent. of the Sussex total, 79 in all, and has been found slightly more frequently on the Chalk Downs.

Finally, of the period of the hollow-based arrow-heads (Pl. I, Fig. 9), rare in Sussex and in England generally though common in Ireland, there is next to no evidence from this country, though abroad, Mr. Smith states, they have been found with leaf-shaped points and with beakers. A specimen with a very slightly concave base was found with a cremation near Swindon, but in most of the 36 Sussex examples the base is markedly concave.

The evidence with regard to these less common types is too scanty to allow of any conclusion as to their place in the chronology of this class of flint implement. It is important to remember too that a type characteristic of one period of culture is apt to persist after that culture has been superseded, so that unless a particular specimen is found in unmistakable association with a datable object, one can never be definitely certain as to when it was made.

My best thanks are accorded to the owners of private collections, and the curators of many museums in Sussex and the neighbouring counties, for the time and information so generously given, without which the data included in this paper could not have been obtained.

Since the above was written the following thirty examples have been reported or discovered; several of them are interesting, but they do not materially affect the percentages in the table.

Wealden Clay; a barbed and tanged specimen from both Warninglid and Horsted Keynes, and three from Walhurst Manor, Cowfold, together with one example each of *petit tranchet* types D and G. Greensand; a remarkable barbed arrow-head with coarse serrated edges, $1\frac{3}{4}$ inches long, of *local* chert, point and one barb missing, from Marley Heights, near Haslemere, and a *petit tranchet* type D. Both of these are in the Hasle-

mere Museum. Chalk Downs; Mr. A. Keiller has fifteen specimens from the Eastbourne Downs, five of them being of rare types: long leaf (6), lozenge (1), triangular (2), hollow base (1), *petit tranchet* types B (1), C (1), and D (3). A hollow base and two long-tanged points come from near the Dyke Station; but more significant than all is a large broad arrow-head with one side convex like a leaf and the other angular like a lozenge-shaped point from inside the Barkhale interrupted ditched camp on the crest of the Downs near Stane Street. Coastal Plain; two specimens have been found in Hove, a Beaker type with barbs and tang of equal length in Reynolds Road, and a long leaf in Vallance Gardens; while at Little London, Chichester, a broken long leaf has been discovered, and at Selsey Mr. W. L. White has found a broken lozenge and an apparently unfinished point.